DECIMATOR DESIGN

NAB 2014 PRODUCT CATALOGUE

INNOVATIVE MONITORING SOLUTIONS

- *MULTI-VIEWERS / QUAD-SPLIT*
- *DOWN UP CROSS CONVERTERS*
- *AUDIO MONITORING*
- *TEST PATTERN GENERATORS*

www.decimator.com

Innovative Monitoring Solutions

DECIMATOR DESIGN (aka REDBYTE DESIGN) is an Australian based company that is dedicated to designing high-quality video equipment for the digital age. Setting a precedence in quality, cost-efficient broadcasting equipment, at DECIMATOR DESIGN we take pride in our ability to design for the future. Already, we have our high-quality digital video equipment being used by some of the world's leading television stations. We are striving to create new and innovative broadcasting equipment that will set the standard for the way in which we view television.

TVTechnology STAR 2013 SUPERIOR TECHNOLOGY AWARD RECIPIENT

DMON-12S (aka DMON-10S)

12 CHANNEL MULTIVIEWER with SDI and HDMI OUTPUTS for 3G/HD/SD

PRODUCT FEATURES

- Low cost miniature (3G/HD/SD)-SDI 12 to 1 Multiviewer or 12 to 1 input multiplexer
- Various multiviewer layouts
- Selectable output format in Multiviewer mode
- Low latency buffering for each input allowing non-synchronous inputs
- Linked (3G/HD/SD)-SDI and HDMI outputs
- 12 x (3G/HD/SD)-SDI inputs with auto detection (26 Formats supported in total)
- Each quadrant is independent of the others, allowing any 3G/HD/SD format of any frame rate to be displayed simultaneously
- Variable aspect ratios per quadrant
- In Pass-Through mode the selected input is passed through to both the (3G/HD/SD)-SDI and HDMI outputs
- The DMON-12S is a truly portable converter, that incorporates our new easy to use LCD and button control system. This gives you easy access to all of the amazing features without using complicated LED/button control, dip switches or having to carry around a computer to change a simple setting.
- This unit also includes:
  - 32 GPI
  - USB port for control and firmware updates
  - Heavy duty metal box
  - Metal Thread Locking DC Power Socket
  - Power Supply, HDMI Cable and USB Cable

(PRELIMINARY DETAILS ONLY)

PICK HIT
BroadcastEngineering
2013
WINNER

DMON-4S

Quad (3G/HD/SD)-SDI to HDMI Converter and Multiviewer

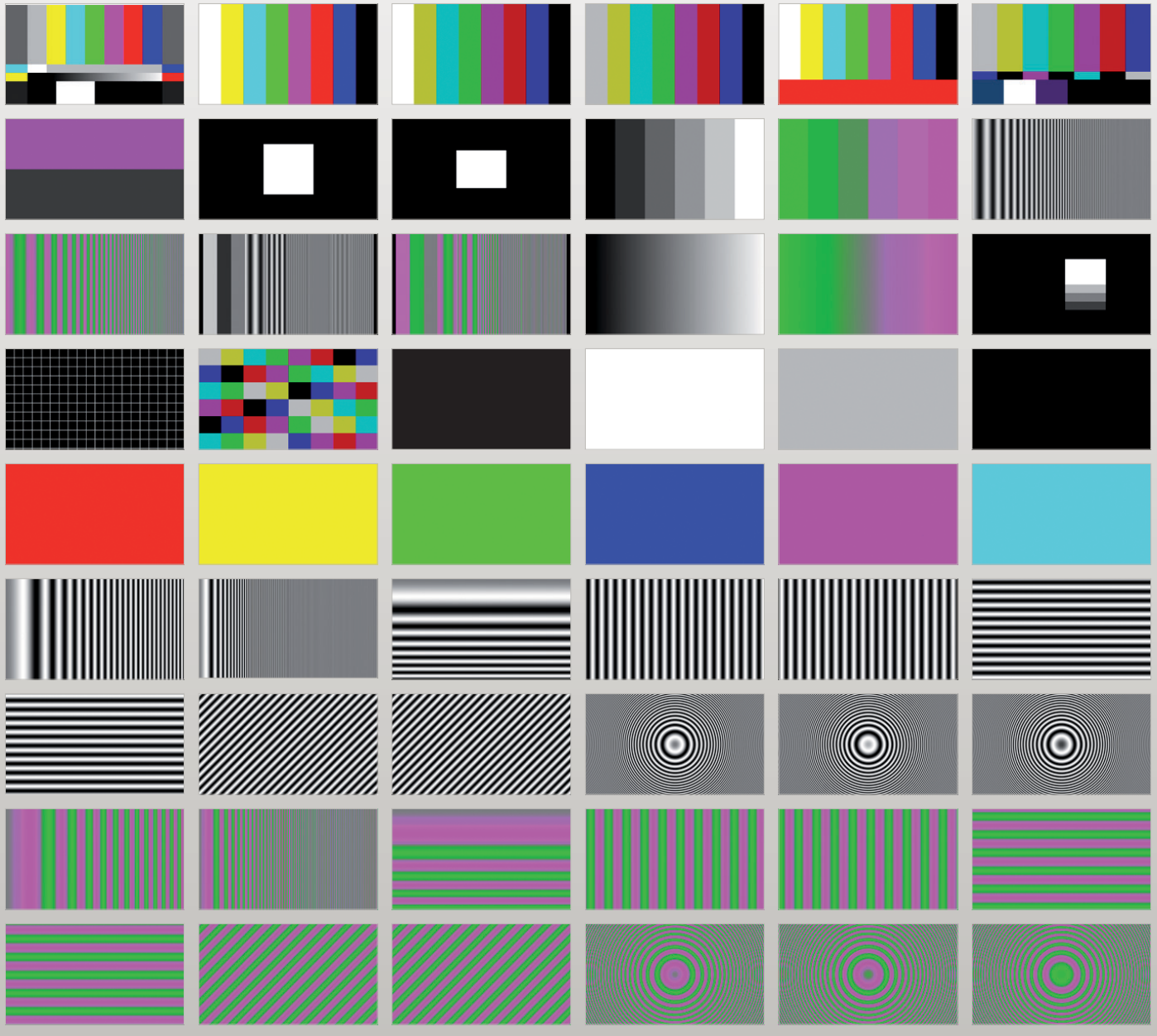
PRODUCT FEATURES

- Includes 4 independent mini HDMI outputs that can each output any of the four (3G/HD/SD)-SDI inputs or a Quad-Split of all them.
  For example you could use the unit to have:
  - 4 independent SDI to HDMI converters
  - 3 independent SDI to HDMI converters with a quad-split output
  - 2 independent SDI to 2 x HDMI converters with loop through
  - A single SDI or Quad-Splt to 4 x HDMI outputs
- Inputs 2 and 4 can be individually changed to output active loop copies of inputs 1 and 2 respectively.
- Quad-Split mode allows selection of audio from any input.
- The DMON-4S is a truly portable converter, that incorporates our new easy to use LCD and button control system. This gives you easy access to all of the amazing features without using complicated LED/button control, dip switches or having to carry around a computer to change a simple setting.
- This unit also includes:
  - USB port for control and firmware updates
  - Heavy duty box
  - Metal Thread Locking DC Power Socket
  - Power Supply, HDMI Cable and USB Cable

SPECIFICATIONS

SDI FORMATS	3G:SMPTE 424M@2.97 and 2.967Gb/s • 1080p@60/59.94/50Hz HD:SMPTE 292M/274M/296M@1.485 and 1.435Gb/s • 1080i@60/59.94/50Hz • 1080p/psf@30/29.97/25/24/23.98Hz • 720p@60/59.94/50/30/29.97/25/24/23.98Hz SD:SMPTE 259M@270Mb/s • 625i50 • 525i59.94	**LCD / BUTTON MENU OPTIONS**	• Status for all 4 inputs • HDMI output type and source selection from SDI inputs 1 to 4 • Quad-Split output format selection • Output aspect and type of 16:9 or 4:3 at either 90 or 100% of screen size • Quad-split individual aspect format for each input of Same as output, Letter-box or Pillar-box • Quad-split Border Enable • Quad-split mode reference of either Free-run or inputs 1 to 4
INPUTS	• 4 x (3G/HD/SD)-SDI 10-bit • Conditional Maximum Equalization cable length of 400M for SDI, 200M for HD-SDI and 100M 3G-SDI using Belden 1694A	**OUTPUTS**	• 4 x mini HDMI Type C
POWER	• +5V to +32V DC • Positive Centre Pin	**DIMENSIONS**	79.5mm x 123mm x 29.5mm (3.1” x 4.8” x 1.2”)

54 Test Patterns are available in the MD-CROSS *and* MD-QUAD



MD-CROSS

MINIATURE HDMI / SDI CROSS CONVERTER with Scaling and Frame Rate Conversion

TVTechnology STAR 2012 SUPERIOR TECHNOLOGY AWARD RECIPIENT

PRODUCT FEATURES

- Features the following four modes:
  1. HDMI to SDI while simultaneously converting SDI to HDMI
  2 .HDMI to HDMI while simultaneously converting SDI to SDI
  3. HDMI to SDI and HDMI
  4. SDI to SDI and HDMI

- Professional 3G/HD/SD Test Pattern Generator featuring:
  - 26 Selectable Output Formats
  - 54 Test Patterns including Luma and Chroma Zone-plates

- Includes the same Down Up Cross Converter from our multi-award winning MD-DUCC, allowing either the HDMI or SDI input to be scaled and/or frame rate converted to the required standard.

- The MD-CROSS is a truly portable converter, that incorporates a new easy to use LCD and button control system. This gives you easy access to all of the amazing features that have been unavailable without a computer until now. The days of having to play with annoying dip switches or having to carry around a computer to change a simple setting are gone.

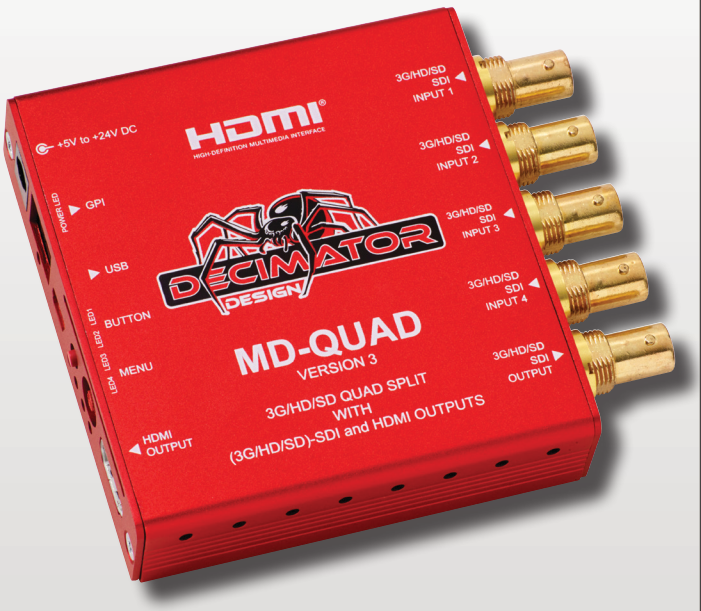
- This unit also includes:
  - (3G/HD/SD)-SDI Active Loop-Through Output
  - Full 16-Channel Audio Metering Overlays
  - Adjustable Safe Title and Safe Action Overlays and static Center Cross
  - Text Overlays
  - USB port for control and firmware updates
  - New Metal Thread Locking DC Power Socket
  - Power Supply, HDMI Cable and USB Cable

SPECIFICATIONS

SDI FORMATS	3G:SMPTE 424M@2.97 and 2.967Gb/s • 1080p@60/59.94/50Hz HD:SMPTE 292M/274M/296M@1.485 and 1.435Gb/s • 1080i@60/59.94/50Hz • 1080p/psf@30/29.97/25/24/23.98Hz • 720p@60/59.94/50/30/29.97/25/24/23.98Hz SD:SMPTE 259M@270Mb/s • 625i50 • 525i59.94	**LCD / BUTTON MENU OPTIONS**	• SDI output source from HDMI IN, SDI IN, TPG or Scaler • HDMI output type and source from HDMI IN, SDI IN, TPG or Scaler • Scaler source, format and Aspect Controls • Control for Audio Meter Overlays • Control for Safe Action, Safe Title and Centre Cross Overlays • Control for Text Overlays • Control for Format Status Overlays
INPUTS	• HDMI • (3G/HD/SD)-SDI 10-bit • Conditional Maximum Equalization cable length of 400M for SDI, 200M for HD-SDI and 100M 3G-SDI using Belden 1694A	**OUTPUTS**	• HDMI • 1 x (3G/HD/SD)-SDI Active Loop-Through • 2 x (3G/HD/SD)-SDI 10-bit Outputs
POWER	• +5V to +32V DC • Positive Centre Pin	**DIMENSIONS**	79.5mm x 123mm x 29.5mm (3.1” x 4.8” x 1.2”)

MD-QUAD

MINIATURE (3G/HD/SD)-SDI QUAD-SPLIT with (3G/HD/SD)-SDI and HDMI Outputs



PRODUCT FEATURES

- 8-Channel Audio metering for each quadrant
- Low cost miniature (3G/HD/SD)-SDI 4 to 1 Quad Split or 4 to 1 input multiplexer
- Selectable output format in Quad-Split mode
- Low latency buffering for each input allowing non-synchronous inputs with a maximum delay of 1 input frame
- Linked (3G/HD/SD)-SDI and HDMI outputs
- 4 x (3G/HD/SD)-SDI inputs with auto detection (26 Formats supported in total)
- Each quadrant is independent of the others, allowing any 3G/HD/SD format of any frame rate to be displayed simultaneously
- Variable aspect ratios per quadrant
- All 4 inputs can be displayed simultaneously on a single output
- Full-screen mode allowing any of the 4 inputs to be selected for output
- In Full-screen mode the selected input is passed through to both the (3G/HD/SD)-SDI and HDMI outputs
- An extensive selection of user controllable functions via an easy to use rotary encoder for menu selection. LEDs and a push button can then be used for status and control
- On-Screen 20 character IDs (UMDs) for each input
- Tallies available via GPI
- On Screen Display of format type per quadrant
- USB port for control and updates
- GPI on RJ-45 for remote switching
- Locking DC Power Socket
- Mounting Bracket included

SPECIFICATIONS

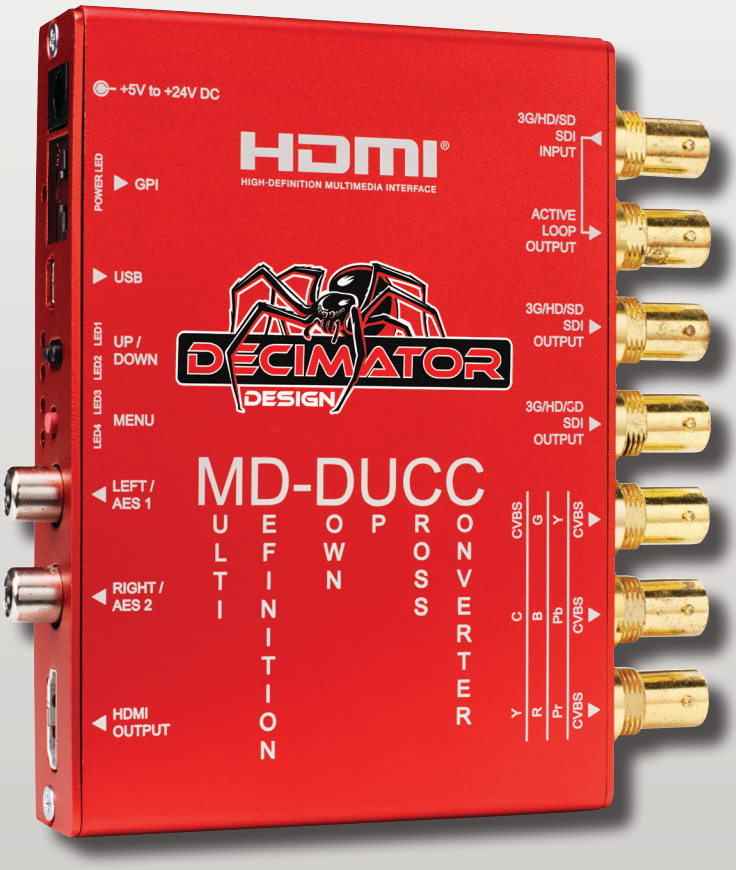
SDI FORMATS	3G:SMPTE 424M@2.97 and 2.967Gb/s • 1080p@60/59.94/50Hz HD:SMPTE 292M/274M/296M@1.485 and 1.435Gb/s • 1080i@60/59.94/50Hz • 1080p/psf@30/29.97/25/24/23.98Hz • 720p@60/59.94/50/30/29.97/25/24/23.98Hz SD:SMPTE 259M@270Mb/s • 625i50 • 525i59.94	**MENU OPTIONS**	• Input status for all 4 inputs • Output format • Output selection of Quad Split or input 1, 2, 3 or 4. • Output aspect and type of 16:9 or 4:3 at either 90 or 100% of screen size • Individual aspect format for each input of Same as output, Letter-box or Pillar-box • Border Enable • Quad split mode reference of either Free-run or input 1
INPUTS	• 4 x 3G/HD/SD-SDI with Input Equalization > 100M using Belden 1694A • USB for control and updates • GPI on RJ-45	**OUTPUTS**	• 1 x 10-bit (3G/HD/SD)-SDI Re-clocked • 1 x HDMI
LED STATUS	• Power • 4 x Signal lock and rate	**DIMENSIONS**	90mm x 94mm x 23mm (3.5” x 3.7” x 0.9“)
POWER	• +5V to +24V DC, approximately 6 Watts • Positive Centre Pin		

MULTI-AWARD WINNING

MD-DUCC

Multi-Definition Down Up Cross Converter

(3G/HD/SD)-SDI to (3G/HD/SD)-SDI, HDMI and Analogue Video with 2 x AES/EBU and 2 x Analogue Audio Outputs



PRODUCT FEATURES

- Auto detects 3G, HD or SD (26 Formats in total)
- Full 10-bit data path and multipoint interpolation
- Professional motion-adaptive de-interlacing
- True Down Up Cross conversion, allowing the conversion between any of the supported formats. Simply select the output format you require, no matter what the input format is
- Complete 16:9, 14:9 and 4:3 Aspect ratio conversion support, with individual selection for HD to HD, HD to SD, SD to HD and SD to SD conversions
- Full 16-Channel Audio metering with:
  - Any of the 4 audio groups individually selectable
  - Vertical or Horizontal Bars
  - AES, VU, Extended VU, BBC, EBU, DIN and NORDIC Scales
  - Bar & Float, Bar only or Float only
  - Transparency adjustment
  - Separate Bar and Float Ballistics control
  - Adjustable Reference level
  - Red, Yellow and Green Range adjustment
  - Bar thickness adjustment
  - Margin adjustment
- Adjustable Graticules Generator with:
  - Separate enables for Safe Action, Safe Title and Centre Cross
  - Adjustable position for either Safe Action or Safe Title
  - Adjustable colours for Safe Action, Safe Title and Centre Cross
- Text Overlays with:
  - Adjustable Foreground and Background colours
  - Adjustable 16 character text
  - Current input format status
- HDMI output
- Selectable analog video from: 3 x CVBS / YPbPr / RGB / CVBS & YC
- 2 x (3G/HD/SD)-SDI 10-bit outputs with audio from input automatically delayed and passed
- GPI on RJ-45 for Tallies
- 3G/HD/SD-SDI Active Loop-Through Output
- De-Embedded audio can be output on 2 x RCA connectors as either AES or Analogue with adjustable analogue audio level
- Buttons and LEDs for basic configuration
- USB port for control and firmware updates
- Locking DC Power Socket
- The following is also included with the unit:
  - Power Supply, HDMI Cable, USB Cable and Mounting Bracket

SPECIFICATIONS

SDI FORMATS	3G:SMPTE 424M@2.97 and 2.967Gb/s • 1080p@60/59.94/50Hz HD:SMPTE 292M/274M/296M@1.485 and 1.435Gb/s • 1080i@60/59.94/50Hz • 1080p/psf@30/29.97/25/24/23.98Hz • 720p@60/59.94/50/30/29.97/25/24/23.98Hz SD:SMPTE 259M@270Mb/s • 625i50 • 525i59.94	**MENU OPTIONS**	• HDMI format type • Analogue Video format type • Output format • Aspect conversion type for HD to HD, HD to SD, SD to HD and SD to SD conversions. • On-Screen Overlays Enables • Basic Audio Meter control • Basic Graticule Enables
INPUTS	• (3G/HD/SD)-SDI 10-bit • Conditional Maximum Equalization cable length of 400M for SDI, 200M for HD-SDI and 100M 3G-SDI using Belden 1694A	**OUTPUTS**	• HDMI • 1 x (3G/HD/SD)-SDI Active Loop-Through • 2 x (3G/HD/SD)-SDI 10-bit Outputs • (3 x CVBS) / (Y, Pb, Pr) / (G, B, R) / (CVBS, Y & C) • AES 1 / Unbalanced Analogue Audio - Left • AES 2 / Unbalanced Analogue Audio - Right
LED STATUS	• Power • Signal Lock	**DIMENSIONS**	90mm x 123mm x 23mm (3.5” x 2.8” x 0.9”)
POWER	• +5V to +24V DC, ~5 Watts • Positive Centre Pin		

DECIMATOR 2

MINIATURE (3G/HD/SD)-SDI to both HDMI and NTSC/PAL Converter with Simultaneous Scaling on both outputs and De-Embedded Analogue Audio

PRODUCT FEATURES

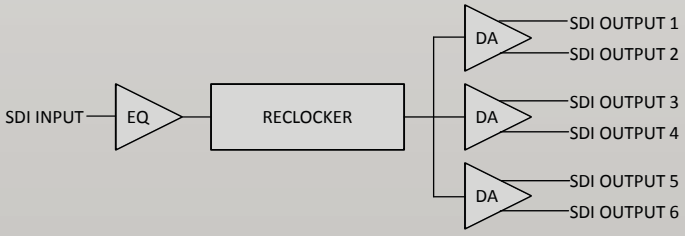
- Auto detects 3G, HD or SD (26 Formats in total) and can handle switching of synchronous sources
- Simultaneous scaling on both the HDMI and Composite outputs with a maximum delay of 1 input frame
- HDMI output with optional full scaling and aspect ratio conversion
- Down-converted Composite output
  - NTSC or PAL is selectable for 3G/HD inputs
  - SD will be passed unchanged.
  - Low latency 3G/HD to SD Down-conversion with ARC (Aspect Ratio Conversion) of either:
    i) 16:9 to 16:9 Anamorphic
    ii) 16:9 to 4:3 Letterbox
    iii) 16:9 to 4:3 Centre Cut (Crop to 4:3)
  - Full 10-bit data path and multipoint interpolation
  - 16 times over-sampling for Composite Output
- Passes EIA-708/608 Closed Captions to the Composite Output
- Full 16-Channel Audio metering displayed on the HDMI output
- De-Embedded Analogue Audio is output on 2 x RCA connectors at -10dBu = -20dBFS.
- 3G/HD/SD-SDI Active Loop-Through Output
- Adjustable Safe Action and Safe Title Overlays on HDMI output
- Centre Cross Overlay on HDMI output
- 16 Character Text Overlays displayed on the HDMI output
- Current input format status overlay displayed on the HDMI output
- External Dipswitch Configuration
- USB port for control and firmware updates
- Locking DC Power Socket
- The following is also included with the unit: Power Supply, HDMI Cable, USB Cable and Mounting Bracket

SPECIFICATIONS

SDI FORMATS	3G:SMPTE 424M@2.97 and 2.967Gb/s • 1080p@60/59.94/50Hz HD:SMPTE 292M/274M/296M@1.485 and 1.435Gb/s • 1080i@60/59.94/50Hz • 1080p/psf@30/29.97/25/24/23.98Hz • 720p@60/59.94/50/30/29.97/25/24/23.98Hz SD:SMPTE 259M@270Mb/s • 625i50 • 525i59.94	**DIP SWITCH CONTROLS**	• NTSC or PAL Selection • SD Pedestal • Crop 16:9 to 4:3 • 16:9 or 4:3 Aspect Selection • Stereo Pair selection for RCA Analogue Audio • HDMI Output format select
INPUTS	• (3G/HD/SD)-SDI 10-bit • Conditional Maximum Equalization cable length of 400M for SDI, 200M for HD-SDI and 100M 3G-SDI using Belden 1694A	**OUTPUTS**	• HDMI • SD-Composite • 1 x (3G/HD/SD)-SDI Active Loop-Through • 2 x RCA for De-embedded Analogue Audio (20dBFS=-10dBu)
LED STATUS	• Power • Signal Lock	**DIMENSIONS**	90mm x 71mm x 23mm (3.5” x 2.8” x 0.9”)
POWER	• +5V to +24V DC, approximately 4 Watts • Positive Centre Pin		

MD-RDA

MINIATURE (3G/HD/SD)-SDI 1 to 6 RECLOCKING DISTRIBUTION AMPLIFIER



PRODUCT FEATURES

- Reclocks one input and outputs 6 new copies of either 3G-SDI, HD-SDI or SD-SDI.
- Conditional Maximum Equalization cable length, using Belden 1694A cable:
  - 400 metres (1312 feet) for SD-SDI
  - 200 meters (656 feet) for HD-SDI
  - 100 meters (328 feet) for 3G-SDI
- Auto rate detect
- Small compact size
- Locking DC Power Socket
- Mounting Bracket included
- Power Supply included

SPECIFICATIONS

SDI FORMATS	3G:SMPTE 424M@2.97 and 2.967Gb/s HD:SMPTE 292M/274M/296M@1.485 and 1.435Gb/s SD:SMPTE 259M@270Mb/s	**INPUTS**	• (3G/HD/SD)-SDI • Conditional Maximum Equalization cable length of 400M for SDI, 200M for HD-SDI and 100M 3G-SDI using Belden 1694A
LED STATUS	• Power • Signal Lock	**OUTPUTS**	• 6 x RECLOCKED (3G/HD/SD)-SDI
POWER	• +5V to +24V DC, ~2 Watts • Positive Centre Pin	**DIMENSIONS**	3” x 2.8” x 0.9” or (78mm x 71mm x 23mm)

DECIMATOR-QUAD

MINIATURE 3G/HD/SD-SDI QUAD-SPLIT with SD-SDI and Composite Outputs

PRODUCT FEATURES

- Low cost miniature 3G/HD/SD-SDI 4 to 1 Quad Split or Down-converter with 4 to 1 input multiplexer.
- Your choice of either a NTSC or PAL output
- Linked SD-SDI and Composite outputs
- 4 x 3G/HD/SD-SDI inputs with auto detection (26 Formats supported in total)
- Each quadrant is independent of the others, allowing any 3G/HD/SD format of any frame rate to be displayed simultaneously
- Variable aspect ratios per quadrant
- All 4 inputs can be displayed simultaneously on a single output
- Full-screen mode allowing any of the 4 inputs to be selected for output
- In Full-screen mode the selected 3G/HD-SDI input is down-converted to either NTSC or PAL and a SD-SDI input is passed through untouched
- An extensive selection of user controllable functions via an easy to use rotary encoder for menu selection. LEDs and a push button can then be used for status and control
- Locking DC Power Socket
- Mounting Bracket included

PICK HIT
BroadcastEngineering
2009
WINNER

SPECIFICATIONS

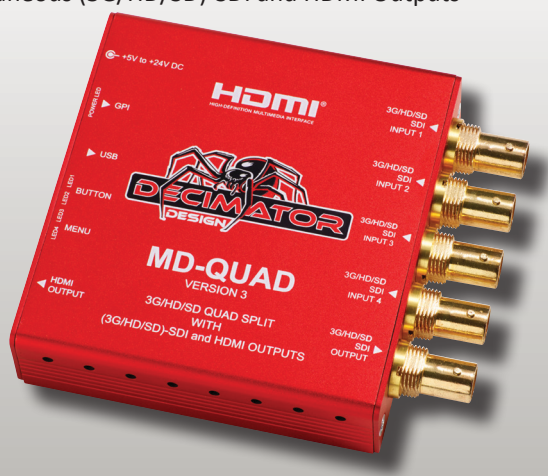
SDI INPUT FORMATS	3G:SMPTE 424M@2.97 and 2.967Gb/s • 1080p@60/59.94/50Hz HD:SMPTE 292M/274M/296M@1.485 and 1.435Gb/s • 1080i@60/59.94/50Hz • 1080p/psf@30/29.97/25/24/23.98Hz • 720p@60/59.94/50/30/29.97/25/24/23.98Hz SD:SMPTE 259M@270Mb/s • 625i50 • 525i59.94	**MENU OPTIONS**	• Input status for all 4 inputs • Output format • Full screen enable • Full screen input select • Output aspect and type of 16:9 or 4:3 at either 90 or 100% of screen size • Individual aspect format for each input of Same as output, Letter-box or Pillar-box • Border Enable • Quad split mode reference of either Free-run or input 1
INPUTS	• 4 x 3G/HD/SD-SDI with Input Equalization > 100M using Belden 1694A	**OUTPUTS**	• 1 x 10-bit SD-SDI Re-clocked • Composite (PAL or NTSC)
LED STATUS	• Power • 4 x Signal lock and rate	**DIMENSIONS**	3.7” x 3.7” x 0.9“ or (94mm x 94mm x 23mm)
POWER	• +5V to +24V DC, 5 Watts • Positive Centre Pin		

MD-CROSS

MINIATURE HDMI / SDI CROSS CONVERTER
with Scaling and Frame Rate Conversion

MD-QUAD

(3G/HD/SD)-SDI QUAD-SPLIT with
Simultaneous (3G/HD/SD)-SDI and HDMI Outputs

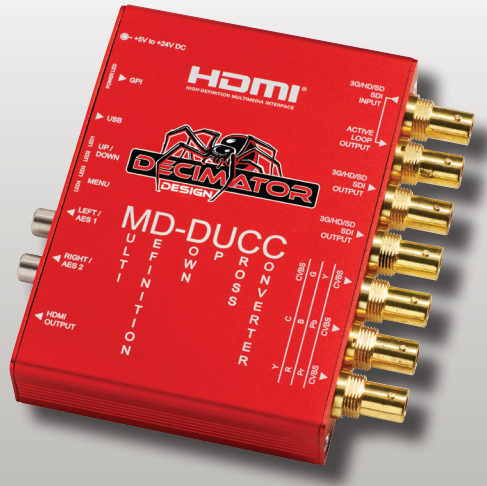


DMON-4S

Quad (3G/HD/SD)-SDI to HDMI Converter and Multiviewer

MD-DUCC

MULTI-DEFINITION DOWN UP CROSS CONVERTER

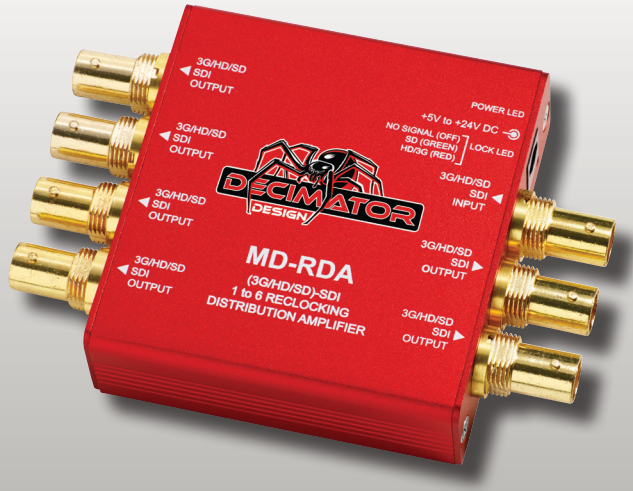


DECIMATOR 2

(3G/HD/SD)-SDI to both HDMI and NTSC/PAL with Simultaneous
Scaling on both outputs and De-Embedded Analogue Audio

MD-RDA

(3G/HD/SD)-SDI 1 to 6 RECLOCKING DISTRIBUTION AMPLIFIER



PRODUCT RANGE CATALOGUE APRIL 2014
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